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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference BIL/PCT/004	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/IN 2003/000221	International filing date (day/month/year) 18 June 2003 (18.06.2003)	Priority Date (day/month/year) 11 July 2002 (11.07.2002)
International Patent Classification (IPC) or national classification and IPC IPC ⁷ : F16D		
Applicant BRAKES INDIA LIMITED		

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1. This international preliminary examination report has been prepared by this International Preliminary Examination Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
- ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).
- These annexes consist of a total of _____ sheets.
3. This report contains indications relating to the following items:
- I. ☒ Basis of the opinion
 - II. ☐ Priority
 - III. ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
 - IV. ☐ Lack of unity of invention
 - V. ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
 - VI. ☐ Certain documents cited
 - VII. ☐ Certain defects in the international application
 - VIII. ☒ Certain observations on the international application

Date of submission of the demand 06.02.2004	Date of completion of this report 30 May 2005 (30.05.2005)
Name and mailing address of the IPEA/AT Austrian Patent Office Dresdner Straße 87 A-1200 Vienna Facsimile No. 1/53424/200	Authorized officer KUTZENBERGER T. Telephone No. 1/53424/577

Form PCT/IPEA/409 (cover sheet) (July 1998)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International Application No.

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I. Basis of the report**1. With regard to the elements of the international application:***

- ☒ the international application as originally filed
- ☐ the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____.
- ☐ the claims:
pages _____, as originally filed
pages _____, as amended (together with any statement) under Article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____.
- ☐ the drawings:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____.
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____.

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____.
- ☐ the claims, Nos. _____.
- ☐ the drawings, sheets/fig _____.

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as „originally filed“ and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 12.

because:

☐ the said international application, or the said claims Nos. require an international preliminary examination (*specify*):

relate to the following subject matter which does not

☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 12 are so unclear that no meaningful opinion could be formed (*specify*):

The subject matter of this claim does not contain any technical features essential to the invention. This does not meet the requirements of Article 6 PCT taken in combination with Rules 6.2a) and 6.3a) PCT.

☒ the claims, or said claims Nos. 12 are so inadequately supported by the description that no meaningful opinion could be formed.

☐ no international search report has been established for said claims Nos.

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement	Novelty (N)	Claims ----	YES
		Claims 1-11	NO
	Inventive step (IS)	Claims ----	YES
		Claims 1-11	NO
	Industrial applicability (IA)	Claims 1-11	YES
		Claims ----	NO

Citations and explanations (Rule 70.7)

Since no amendment of the claims in reply to the 1. and 2. Written Opinion has been made, a sufficient differentiation is not produced to justify novelty respectively inventive step over the prior art cited.

No patentable difference could be found.

The European patent EP 1 128 082 A2 shows in Fig. 7 a drum brake assembly comprising an additional lever arrangement in the unutilized space on the brake shoe (40) by which it can deliver an enhanced brake output torque as compared to the conventional drum brake. The new lever is pivoted on the brake shoe's (40) web and at one end rests on the wheel cylinder piston and the other end is connected to the strut assemblies (92,70). The lever touches the piston instead of the leading shoe web. Further the brake assembly comprises a backplate, a second brake shoe (50), shoe return springs, a handbrake lever and shoe hold down springs (80). The incorporation of a new lever can deliver an output brake torque higher to that compared with a conventional drum brake assembly without necessitating a bigger diameter. Upon acting the wheel cylinder, which is fixed to the backplate, the lever rotates about its pivot point and pushes the strut assembly (70) and the braking force is transmitted to the brake shoe (50) which gets two inputs, one from the wheel cylinder and the other from the strut assembly (70) which is mechanically actuated by the new lever. The wheel cylinder input and the strut (70) reaction force together result in an enhanced force acting on the (leading) brake shoe (40). Additionally, this embodiment provides breaking forces at very high gain due to the function of both brake shoes (40,50) as leading shoes with self-servo effect.

By omitting the strut assembly (70) and applying only one strut assembly (92) the above cited document shows all features of claims 1-11. To omit a feature in a known construction is not inventive.

Therefore the subject matters of claims 1-11 of the present application are not new and not inventive.

The European patent EP 0 887 570 A2 and US 2,232,308 A show all features of claims 1-3 and 7-11.

The German patent DE 480 534 C and US 2,037,432 A show all features of claims 1-2 and 7-11.

The industrial applicability is doubtlessly given.

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VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

Reference signs in parentheses should be inserted in the claims to increase their intelligibility (Rule 6.2b PCT).

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